Siemens Docket No.: 2001P07471US01

## **CLAIMS**

- 1. An air filter comprising:
  - a filter housing with air flowing through said filter housing in a first direction;
- a pleated filter support operatively connected to said filter housing said pleated filter support having support members define a pleated shape; and
  - a filter at least partially supported by said support members.
- 2. The air filter of Claim 1 wherein said pleated filter support comprises a wire mesh.
- 3. The air filter of Claim 1 wherein said pleated filter support comprises a plurality of posts.
- 4. The air filter of Claim 1 wherein said pleated filter support comprises a plurality of ridges spaced about equally apart.
- 5. The air filter of Claim 1 wherein said pleated filter support comprises at least a partially annular form.
- 6. The air filter of Claim 1 wherein said filter comprises a low restriction filter paper.
- 7. The air filter of Claim 1 wherein said filter and said pleated filter support are operatively connected by welding.
- 8. The air filter of Claim 1 wherein said filter and said pleated filter support are operatively connected by an adhesive.
- 9. The air filter of Claim 1 including a filter seal operatively connected to said filter and said pleated filter support.

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- 10. An air induction system comprising:
  - a flow body;
- a filter housing in communication with said flow body with air flowing through said filter housing in a first direction;
- a pleated filter support operatively connected to said filter housing said filter support having support members define a pleated shape; and
  - a filter at least partially supported by said support members.
- 11. The air induction system of Claim 10 wherein said pleated filter support comprises a wire mesh.
- 12. The air induction system of Claim 10 wherein said pleated filter support comprises at least a partially annular form.
- 13. The air induction system of Claim 10 wherein said filter comprises a low restriction filter paper.
- 14. The air induction system of Claim 10 wherein said filter and said pleated filter support are operatively connected by welding.
- 15. The air induction system of Claim 10 wherein said filter and said pleated filter support are operatively connected by an adhesive.
- 16. The air induction system of Claim 10 including a filter seal operatively connected to said filter and said pleated filter support.

17. A method of manufacturing an air filter comprising the steps of: arranging a plurality of support members into pleats; and adhering a filter to the pleats.

- 19. The method of manufacturing the filter of Claim 18 wherein the plurality of support members comprise a wire mesh.
- 20. The method of manufacturing the filter of Claim 18 including the step of sealing the filter to the support.